

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/09/2009 has been entered.

### ***Examiner's Amendment***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Timothy Meager (Reg. 39302) on 01/29/2010.

The application has been amended as follows: Claim 33 has been amended to include the language shown below, claim 36 has been amended to change the claim dependency from 35 to 33, and both claims 35 and 37 are cancelled.

33. A joint transform correlator in which a reference image and a scene image are displayed side-by-side as a joint image, and light therefrom is Fourier transformed to provide a distribution indicative of a Fourier transform of the joint image on an image capture device, the image

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capture device being constructed and arranged to provide an electrical signal per pixel representative of a quantity of light received at the pixel wherein the image capture device is integrated on a silicon substrate, and the integrated device further comprises processing circuitry constructed and arranged to compare the electrical signal of each pixel of the image capture device against a threshold, and to provide an output signal per pixel in accordance with the comparison result, the integrated device further comprising a pixellated image production device integrated on the same substrate as the image capture device, wherein the processing circuitry is constructed and arranged to provide each output signal per pixel to a respective pixel of the image production device.

36. The joint transform correlator of claim 33, having output circuitry for reading out unprocessed information from each pixel of the image capture device.

***Allowable Subject Matter***

3. Claims 20-34, 36, and 38-39 are allowed.

4. The following is an examiner's statement of reasons for allowance: Examiner has withdrawn the previously presented 35 USC 102 rejections of the claims. The currently presented claim limitations include subject matter not identified in the known or cited prior art. These elements include the relative orientation of the image production and capture device (claim 20), and the integration of the image production and capture device on a single integrated device or substrate (claims 33 and 38-39). The cited prior art (Wilkinson) has taught a joint

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transform correlator, but has not taught the limitations of the claims above that have led to a more compact joint transform correlator design.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN BLOOM whose telephone number is (571)272-9321. The examiner can normally be reached on 10AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Matthew C Bella/

Supervisory Patent Examiner, Art Unit 2624